REMARKS/ARGUMENTS

Office Action Summary

Claims 1-2, 4, 7, 9-10, 12-15, 17, 19-20, 32, 34, and 36-37 are pending in the application. Claims 12-15, 17, 19-20, 32, 34, and 36-37 are allowed. Claims 2, 4, 7, and 9-10 stand rejected under 35 U.S.C. § 103(a) as being obvious under U.S. patent no. 6,535,720 (Kintis et al.). Claim 1 stand rejected as being obvious under Kintis et al. in view of U.S. patent no. 6,178,317 (Kroeger). Applicant is unaware of any other rejections or objections pending in the application.

Allowed Claims

Applicant notes, with appreciation, the allowance of claims 12-15, 17, 19-20, 32, 34, and 36-37.

Rejection of Claims 2, 4, 7, and 9-10 Under 35 U.S.C. § 103(a) Kintis et al.

Independent Claims 1, 2, 4, 7, and 9-10 stand rejected as obvious under Kintis et al. (and Kroeger, in part). The rejections purport that Kintis et al discloses, *inter alia*, that the first carrier frequency and second carrier frequency are summed together by a "broadly claimed" high isolation combiner, that is coupled to a single output through an antenna (inherently). To support this proposition, the rejection directs attention to the summation module illustrated in Figure 1 of Kintis et al.

Applicant respectfully traverses the rejections, without amendment to any of the pending claims, because Kintis et al. fails to teach or suggest the claimed high isolation combiner (or combining step) coupled (or coupling) to combine a first modulated carrier signal and a second modulated carrier signal to a single antenna output, as claimed in each of the rejected claims (emphasis added).

In preparation of any patent application, there exists a duty to not present the disclosure of the invention and illustrative embodiments in such a way as to obscure them with details that would be readily apparent to those of ordinary skill in the art having the

benefit of the disclosures presented therein. Accordingly, the components of the illustrative embodiments are properly represented using conventional symbols in the drawings as are known to those having ordinary skill in the art.

With respect to the present invention, a high isolation combiner is a device or circuit known to those of ordinary skill in the art. The characteristics of which are to provide a high degree of isolation between the two RF inputs, so as to prevent the creation of intermodulation products and distortion, maintain constant impedance, and prevent the loss of radio frequency power between the two inputs, so as to maximize the power coupled to the output of the high isolation combiner. Kintis et al. only teaches the use of a summing node or circuit to couple plural signal outputs together. See Figure 1 and corresponding descriptive materials in the Kintis et al. specification. The reason that Kintis et al. can successfully employ a summing junction instead of a high isolation combiner is because Kintis et al. teach the use of a broadband power amplifier after the summing junction and before the antenna output (see item 31 in Figure 1, and Col. 4, lines 3-9). Since the input signals are at low power, the power-loss and intermodulation issues are far less significant. Thus, the rejection fails because Kintis et al. fail to teach or suggest the use of a high isolation combiner. Thus, the rejections are improper and should be withdrawn.

Additionally, Kintis et al. to do not teach or suggest that the output of the summing junction is coupled to a single antenna output as claimed in every one of the rejected claims. The reason is that the output of the Kintis et al. summing junction does not have adequate power to radiate the requisite broadcast signals. Rather, Kintis et al. teach that the output of the summing junction is coupled to a power amplifier, which is in-turn coupled to an antenna output. This is a distinctly different circuit topology from that claimed in the present invention, where the RF power to be radiated by the antenna is produced using individual amplifiers for the two input signals, which are then combined by the high isolation combiner to a single antenna output. Thus, the rejections are improper and should be withdrawn.

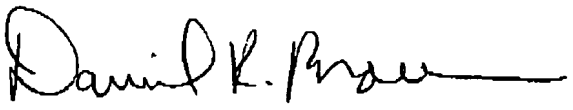
Conclusion

The foregoing is submitted as a full and complete response to the non-final Office Action mailed February 9, 2007. The Applicant believes that the same places the present application in condition for allowance. Reconsideration by the Examiner and allowance of the claimed invention is hereby courteously solicited.

The total number of claims in the Application is unchanged. Therefore, applicant believes that no additional fee is required at this time. In the event that the Examiner determines otherwise, the Commissioner is hereby authorized to charge such additional fees, excluding the Issue Fee, or credit any overpayment, to Daniel R. Brown Deposit Account No. 501507.

Applicant respectfully requests reconsideration by the Examiner and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

By: 

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